

NASA Parts and Packaging Program
Goddard Space Flight Center (GSFC)
EEE Parts Program

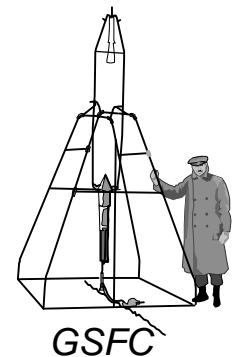
Presentation to the
Space Parts Working Group
March 1998

Presented by:

Jay Brusse

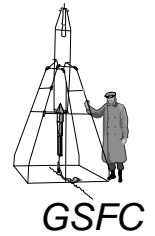
Unisys Corporation @ NASA Goddard Space Flight Center
(301) 286-2019

Jay.A.Brusse.1@gsfc.nasa.gov



NASA Parts and Packaging Program

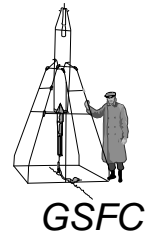
Goddard EEE Parts Program Elements



- *NASA Parts Selection List (NPSL)*
- *Supplier Assessment Programs*
 - *Passive (PSAP)*
 - *Active (ASAP)*
- *EEE Parts Information Management System (EPIMS)*
 - *GSFC Parts Analysis Web System (PAWS)*
- *EEE Links Newsletter*

NASA Parts Selection List

What is the NPSL ?

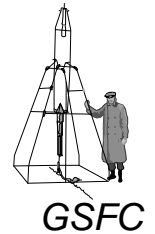


- *NPSL is a WWW-Based EEE Parts Selection Toolkit*
- *NPSL Provides Detailed Support for Parts Selection and Application for NASA Programs*
- *Targeted Users of the NPSL Include:*
 - *Parts Engineers (Govt., OEM, University)*
 - *Design Engineers (...)*
 - *Experimenters (...)*
 - *Anyone and Everyone with an Interest*
- *NPSL can be Accessed at:*

<http://misspiggy.gsfc.nasa.gov/npsl>

NASA Parts Selection List

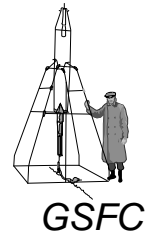
Role of the NPSL



- *NPSL Captures the Best Features of MIL-STD-975 and GSFC PPL-21*
 - *MIL-STD-975 is No Longer Being Maintained (Last 975 Update was March 1995)*
 - *PPL-21 has Uncertain Future (Last Update was Notice 1 Dated May 1996)*
- *NPSL Provides “Real-Time” Guidance to NASA Projects and Offers Free Access to All*
- *NPSL is Not Designed to be Contractually Mandated*
- *NPSL Goes Beyond the Traditional Offerings of its Predecessors*

NASA Parts Selection List

Current Status and Future Plans



- *NPSL is Available NOW!!*

<http://misspiggy.gsfc.nasa.gov/npsl>

- *Initial Phase (FY98):*

- *Capture EEE Commodities Covered by 975 and PPL-21*
- *Most Commodity Sections are Complete Now!*

- *Second Phase (End of FY98):*

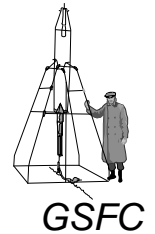
- *Capture Derating Guidelines*

- *Third Phase (FY99):*

- *Capture New and Advanced Technologies*

NASA Parts Selection List

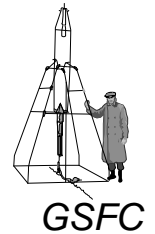
Key Elements and Benefits



- *Fast, Unrestricted World-Wide Access*
- *Robust Selection Lists for EEE Parts for Spaceflight*
- *Full Part Number/Ordering Explanations*
- *Available Sources of Supply*
- *Detailed Application Notes and Guidelines*
- *Dimensional Drawings, Outline Configurations, Connector Insert Arrangements, etc.*

NASA Parts Selection List

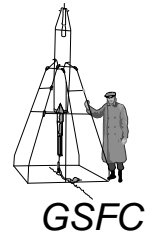
Key Elements and Benefits



- *Links to Part Reliability Databases*
 - *EPIMS*
 - *Radiation Effects*
 - *Construction Analyses*
- *Links to Manufacturer Homepages*
- *Links to DSCC Homepage for QPL/QML and Specs*
- *Links to GSFC Procurement Specifications*
- *Future Links to Any Sites We Consider Value-Added*
- *User Feedback is Critical to Future Enhancements*

Supplier Assessment Programs

Who are PSAP and ASAP?



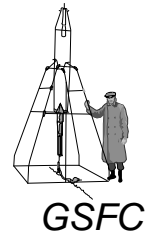
- *PSAP and ASAP are NASA HQ's Funded Programs Established to Provide NASA Projects with Insight into the EEE Parts Marketplace*
- *PSAP and ASAP are Managed by:*
 - *Passive (PSAP)*

Mike Sampson (GSFC Passive Parts Specialist)
(301) 286-8838
Michael.J.Sampson.1@gsfc.nasa.gov
 - *Active (ASAP)*

Ashok Sharma (GSFC Active Parts Specialist)
(301) 286-6165
Ashok.K.Sharma.1@gsfc.nasa.gov

Supplier Assessment Programs

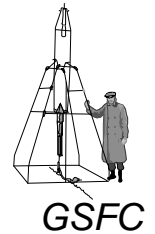
Key Elements



- *PSAP / ASAP are Primary “Technology Support Arm” of the NASA Parts Selection List (NPSL)*
- *PSAP / ASAP Conduct Routine Monitoring of EEE Parts Marketplace for Availability or Reliability Issues*
 - *Diminishing Source*
 - *Shipment Holds*
 - *Failure Reviews*
- *Periodic “Piggyback” Auditing with DSCC of Key Suppliers to NASA*
- *Provide DSCC and Industry with NASA Voice for Military / Industry Specification Modifications*

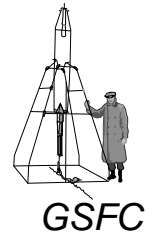
Supplier Assessment Programs

Key Deliverables



- *Technical Inputs to the NPSL*
- *On-line Access to “Core Suppliers Lists”*
 - *Passives --> <http://arioch.gsfc.nasa.gov/psap/psap.htm>*
 - *Actives --> <http://arioch.gsfc.nasa.gov/asap/asap.htm>*
- *Readily Available Technical Advice/Support*
- *Regular Parts “Information” Bulletins via E-Mail*
 - *Passives Contact Jay Brusse*
Jay.A.Brusse.1@gsfc.nasa.gov
 - *Actives Contact Qutbuddin (Ali) GhulamAli*
Qutbuddin.Ghulamali.1@gsfc.nasa.gov

EEE Parts Information Management System (EPIMS)



■ *NASA (GSFC) WWW-Based Database*

<http://epims.gsfc.nasa.gov>

■ *Available Data Includes:*

- *GIDEP Alert Database*
- *NASA Project Parts Lists*
- *NSPAR References*
- *Manufacturer CAGE Code Lookup*

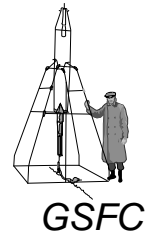
NEW ! • *GSFC Parts Analysis Web System (PAWS)*

■ *Intended for Use by Govt., Contractors, Industry, Academia Directly Supporting NASA Programs*

- *User-ID and Password Protected Access*

GSFC Parts Analysis Web System

(PAWS)



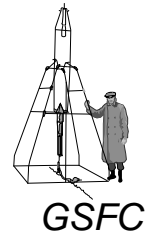
■ *WWW Access to GSFC Parts Analysis Reports*

- *Literally 1000's of Reports Available*
 - *DPA*
 - *Construction Analysis*
 - *Failure Analysis*
 - *Coupon Evaluation*
- *Newer Reports Available in ADOBE Acrobat File Format*
- *Older Reports Available as Text Only*

■ *RESTRICTED Access:*

- *Accessible Via the EPIMS Homepage*
- *Available to Government and Contractor Personnel Directly Supporting NASA Programs*

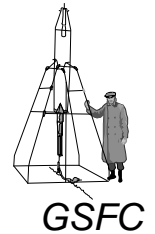
EEE Links Newsletter



- *Quarterly Newsletter Discussing Topics of Interest for EEE Parts and Packaging*
- *Articles from Govt., Contractors, Industry, Academia*
 - *Parts and Packaging Technology Developments*
 - *Conference Summaries*
- *Available in Two Formats*
 - *Via the WWW*
<http://arioch.gsfc.nasa.gov/312/Linkspg.htm>
 - *For Hardcopy Mailing Contact:*
Bob Humphrey (Editor)
(301) 731-8625
Robert.D.Humphrey.1@gsfc.nasa.gov

NASA GSFC Parts Program

Key Points of Contact



Mike Sampson

Passive Parts

NASA GSFC Code 562

(301) 286-8838

Michael.J.Sampson.1@gsfc.nasa.gov

Ashok Sharma

Active Parts

NASA GSFC Code 562

(301) 286-6165

Ashok.K.Sharma.1@gsfc.nasa.gov

Steve Waterbury

EPIMS / PAWS

NASA GSFC Code 562

(301) 286-7557

waterbug@epims1.gsfc.nasa.gov

Jay Brusse

Passive Parts

Unisys Corporation at NASA GSFC

(301) 286-2019

Jay.A.Brusse.1@gsfc.nasa.gov

Qutbuddin (Ali) GhulamAli

Active Parts

Unisys Corporation at NASA GSFC

(301) 731-8689

Qutbuddin.Ghulamali@gsfc.nasa.gov

Terry King

Connector, Wire and Cable

Unisys Corporation at NASA GSFC

(301) 286-9309

Terry.J.King.1@gsfc.nasa.gov

NASA Goddard Space Flight Center EEE Parts Homepages

NASA Parts Selection List

EEE Parts Selection
Supplier Info
Application Guidelines
and More!!

<http://misspiggy.gsfc.nasa.gov/npsl>

EPIMS

GIDEP and NASA Advisory Search
Parts Lists
Parts Analysis Reports (PAWS)
NSPAR References

<http://epims.gsfc.nasa.gov>

GSFC Component Technologies & Radiation Effects Branch

GSFC Procurement Specs
PPL-21
Screening/Qual Guidelines

<http://arioch.gsfc.nasa.gov/311/html/311.html>

Passive Supplier Assessment Program

Passive Parts Core Suppliers List

<http://arioch.gsfc.nasa.gov/psap/psap.htm>

GSFC Parts Analysis Web System (PAWS)

Reports Available for Download
DPA
Construction Analysis
Failure Analysis

<http://epims.gsfc.nasa.gov>

Available via EPIMS

Active Supplier Assessment Program

Active Parts Core Suppliers List

<http://arioch.gsfc.nasa.gov/asap/asap.htm>

GSFC Materials Outgassing Database

Outgassing Data for Selecting Spacecraft Materials

<http://misspiggy.gsfc.nasa.gov/og>

EEE Links Newsletter

Quarterly Publication
Parts and Packaging Technology Articles

<http://arioch.gsfc.nasa.gov/312/Linkspg.htm>

GSFC Radiation Effects and Analysis

Single Event Effects
Total Ionizing Dose

<http://flick.gsfc.nasa.gov/radhome.htm>



GSFC